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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DROR SCHWARTZ, MOSHE ERAN KRAUS,
AMIR KESSNER, SAGI MONZA, and ARNON MATHIAS¹

Appeal 2016-001095
Application 12/910,025
Technology Center 2100

Before MICHAEL J. STRAUSS, AMBER L. HAGY, and
DAVID J. CUTITTA II, *Administrative Patent Judges*.

CUTITTA, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Final Rejection of claims 1, 3, 6–8, 11–14, 16, 17, and 19–24.² We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

We REVERSE.

¹ According to Appellants, the real party in interest is Hewlett-Packard Development Company, LP. *See* Appeal Brief 1.

² Claims 2, 4, 5, 9, 10, 15, and 18 have been cancelled. *See* Appeal Brief Claims Appx. i.

BACKGROUND

The claimed invention relates to assisting with the reliable identification of objects in a software application or document, such as a web application or web page. Spec. ¶ 8.³ Claims 1, 8, and 14 are independent. Claims 1 and 8 are illustrative and are reproduced below with disputed limitations emphasized:

1. A method, comprising:

detecting, by a system having a processor, an operation of a software application performed at a first time on a target object;

generating, by the system, an automation script containing the operation;

identifying, by the system prior to execution of the automation script, relations between the target object and other objects within the software application;

ranking, by the system, the identified relations in accordance with usefulness of each relation with respect to identifying the target object at a later time, wherein the ranking is based on different types of the identified relations;

eliminating, based on the ranking, at least one of the identified relations to form a subset of the identified relations that excludes the eliminated at least one identified relation;

testing, by the system, the identified relations in the subset to determine which of the identified relations in the subset are useful for identifying the target object so that the operation can be performed on the target object;

³ Throughout this Opinion, we refer to: (1) Appellants' Specification filed Oct. 22, 2010 ("Spec."); (2) the Final Office Action ("Final Act.") mailed Dec. 5, 2014; (3) the Appeal Brief ("Appeal Br.") filed Apr. 9, 2015; (4) the Examiner's Answer ("Ans.") mailed Aug. 28, 2015; and (5) the Reply Brief ("Reply Br.") filed Oct. 27, 2015.

based on the testing, generating, by the system, a set of the useful relations corresponding to the target object;

after generating the set of the useful relations, executing the automation script to replay the operation; and

attempting, by the system, identification of the target object during the replay using the set of the useful relations.

8. An article comprising at least one non-transitory computer-readable storage medium storing instructions that upon execution cause a system having a processor to:

receive an automation script containing a representation of an operation performed at a first time on a target object within a software application;

prior to executing the automation script to replay the operation on the target object,

generate a set of relationships between the target object and other objects within the software application;

receive attributes of the target object that the target object had at the first time; and

first attempt to identify the target object using the attributes without using any of the relationships;

second attempt to identify the target object using the relationships;

compare results of the first attempt with results of the second attempt;

refine the set of relationships based on the compared results; and

after refining the set of relationships, execute the automation script to replay the operation on the target object using the refined set of relationships to identify the target object during the replay.

REFERENCES

The art relied upon by the Examiner in rejecting the claims on appeal:

McGrath et al. (“McGrath”)	US 2004/0194054 A1	Sept. 30, 2004
Patterson	US 7,165,240 B2	Jan. 16, 2007
Boulineau et al. (“Boulineau”)	US 2008/0313595 A1	Dec. 18, 2008
Bixon et al. (“Bixon”)	US 2009/0125876 A1	May 14, 2009

REJECTIONS

Claims 1, 3, 6–8, 11–17, 19, and 21–23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Patterson, McGrath, and Bixon. Final Act. 6–21.

Claims 20 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Patterson, McGrath, Bixon, and Boulineau. Final Act. 21–24.

Our review in this appeal is limited only to the above rejections and issues raised by Appellants. We have not considered other possible issues that have not been raised by Appellants and are, therefore, not before us. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2014).

ISSUES

1. Based on Appellants’ arguments, the dispositive issue presented on appeal for claim 1 is whether the Examiner errs in finding that the cited combination of references teaches or suggests “ranking, by the system, the identified relations in accordance with usefulness of each relation with respect to identifying the target object at a later time, wherein the ranking is based on different types of the identified relations,” as recited in claim 1.

2. Based on Appellants' arguments, the dispositive issue presented on appeal for claim 8 is whether the Examiner errs in finding that the cited combination of references teaches or suggests "first attempt to identify the target object using the attributes without using any of the relationships; second attempt to identify the target object using the relationships," as recited in claim 8.

ANALYSIS

Claim 1

The Examiner finds Bixon teaches or suggests the disputed features of independent claim 1. Final Act. 3–4, 6–9; Ans. 2–4 (citing Bixon ¶¶ 8, 19, 20, 24).

Appellants note Bixon refers to relations but argue Bixon "does not provide any teaching or hint that such relations are ranked in accordance with usefulness of each relation with respect to identifying the target object at a later time." Appeal Br. 9 (citing Bixon ¶ 19).

We agree with Appellants the Examiner has not demonstrated that these findings are supported by the teachings or suggestions of Bixon.

Bixon seeks to identify objects to be tested after a change is made to a particular object. Bixon ¶ 6. The Examiner finds the particular object or objects that are changed correspond to the claimed target object. Ans. 2. Bixon ranks objects based on the likelihood objects will need to be tested due to the change in the target object based on relationships the objects have to each other and to the target object and based on human rules. Bixon ¶¶ 10–12, 19. The Examiner relies on Bixon's ranking of objects to suggest "ranking," as claimed. Ans. 2. Specifically, the Examiner finds "Bixon teaches ('[t]he logic determination 201 sorts (**i.e., ranks**) the other objects

that directly use the one or more changed objects (**i.e., target object**) into types (**i.e., relations**).” Ans. 2. We agree, however, that Bixon does not suggest ranking the identified relations in accordance with *usefulness of each relation in identifying the target object* but instead ranks based on the likelihood objects will need to be tested due to changes in the target object. For example Bixon discloses,

[a] subset of the objects 208, 210, 212, 214 is collected as more useful than other objects of the plurality of available objects for notification to a user 110 of the application 206 in view of the changed object . . . The output 216 comprises an indication of thee [sic] subset of objects 208, 210, 212, 214 ***that are to be tested due to the changed object*** on the application 206.

Bixon ¶ 19 (emphasis added).

Accordingly, we concur with Appellants that the Examiner has failed to establish Bixon teaches, suggests, or renders obvious “ranking, by the system, the identified relations in accordance with usefulness of each relation with respect to identifying the target object at a later time,” as recited in claim 1.

Because we agree with at least one of the dispositive arguments advanced by Appellants for claim 1, we need not reach the merits of Appellants’ other contentions.

We therefore reverse the Examiner’s 35 U.S.C. § 103(a) rejection of claim 1. We also reverse the rejection of independent claim 14, which recites commensurate limitations, and of dependent claims 3, 6, 7, 16, 17, 19, 20, 21, 22, and 24, which stand with their respective independent claims.

Claim 8

In the Final Action, the Examiner finds the first and second iterations of Bixon's first algorithm 201 teach or suggest a "first attempt" and "second attempt," as recited in claim 8. Final Act. 4–5. In the Answer, however, the Examiner changes the basis of this rejection by instead finding Bixon's second algorithm 204 teaches or suggests a "first attempt" and Bixon's first algorithm 201 teaches or suggests a "second attempt," as recited in claim 8. Ans. 5 (citing Bixon ¶¶ 21, 29).

In the Reply Brief, Appellants rebut these new findings. More specifically, Appellants argue the Examiner errs in rejecting claim 8 because the second algorithm of Bixon does use a relationship between objects and therefore the second algorithm cannot be equated with the first attempt of claim 8, which identifies the target object *without using any of the relationships* between the target object and other objects. Reply Br. 9. More specifically, Appellants argue,

[t]he Examiner equated the second algorithm of Bixon with this first attempt. The second algorithm of Bixon "tells whether or not the dependency between that table 218 and that function 308 is significant for testing." For the second algorithm to tell whether or not the dependency between the table and the function is significant for testing requires the second algorithm to use the dependency between the table and the function. The fact that the second algorithm uses rules (Bixon, ¶ [0021]), does not change the fact that Bixon also uses the dependency between the table and the function. In contrast, according to claim 8, the first attempt is to identify the target object using the attributes **without using any of the relationships** between the target object and other objects within the software application.

Reply Br. 9.

We find Appellants’ arguments persuasive because we agree the Examiner fails to establish Bixon suggests attempting to identify the target object using the attributes *without* using any of the relationships between objects. Bixon indicates that “application 206 may comprise a plurality of types of objects, for example, tables 218, [and] functions 308.” Bixon ¶ 12. Bixon also indicates the first algorithm 202 finds dependencies between tables 218 and functions 308 and the second algorithm 204 indicates whether or not the dependency is significant for testing. Bixon ¶ 29. Because we agree that a dependency between objects suggests a relationship between the objects, we agree that Bixon’s second algorithm 204 uses the relationship between the table and the function to indicate whether the relationship is significant for testing. Accordingly, we agree the Examiner fails to establish Bixon teaches or suggests “first attempt to identify the target object using the attributes without using any of the relationships [between objects],” as recited in claim 8.

Because we agree with at least one of the dispositive arguments advanced by Appellants for claim 8, we need not reach the merits of Appellants’ other contentions. We also reverse the rejection of dependent claims 11, 12, 13, and 23, which stand with independent claim 8.

DECISION

We reverse the Examiner’s decision rejecting claims 1, 3, 6–8, 11–14, 16, 17, and 19–24 under 35 U.S.C. § 103(a).

REVERSED